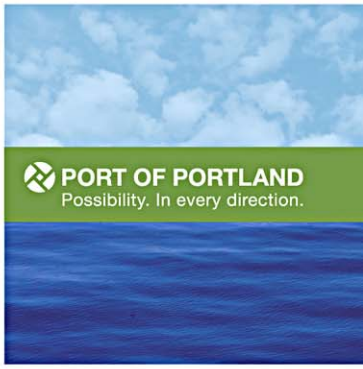

April 29, 2011

Mr. David Lacey
Oregon Department of Environmental Quality
2020 SW Fourth Avenue, Suite 400
Portland, OR 97201-4987

Subject: **Swan Island Upland Facility**
Final Level II Screening Ecological Risk Assessment, Operable Unit 1 and Response to DEQ Comments on the Draft Level II Screening Ecological Risk Assessment, Operable Unit 1
ECSI No. 271

Dear David:

Please find enclosed the Final Level II Ecological Risk Assessment (ERA) for the Swan Island Upland Facility (SIUF), Operable Unit 1 (OU1). This letter also provides the Oregon Department of Environmental Quality (DEQ) with a response to comments received in a letter dated March 30, 2011 on the Draft Level II Screening ERA for the SIUF, OU1 dated March 2010. DEQ comments and the Port's responses are presented below; which are incorporated in the Final Level II ERA OU1 report.

Specific Comments

1. Page 8. The EPA ProUCL computer program was used to obtain data distribution evaluations and to calculate the 90% UCLs for COIs that exceed Level II screening criteria. DEQ request that the 90% UCL calculation output from Pro UCL software be submitted as an appendix.

Response: The 90% UCL calculation output from ProUCL is submitted as Appendix D-6 in the final report. (Note that 95% UCL calculation output is also included in Appendix D-6 for reasons that are articulated in the Appendix. Only the 90% UCLs were used in the Level II analysis.)

2. Appendix C-1, Riverbank Risk Screening: DEQ soil values are currently outdated for several SLVs. The following should be used in the risk screening for the final report:

Metals: Where available, EPA Eco SSLs should be used instead of DEQ SLVs. This will change the values for some metals, but does not change the conclusions of the risk assessment.

Response: EPA's Ecological Soil Screening Levels (EcoSSLs) were used preferentially in the risk screening, as available for analytes and receptor groups. As indicated in the comment, this does change the screening values (e.g., copper EcoSSL is 28 mg/kg, below the regional

background value of 36 mg/kg and also below the DEQ screening level value [SLV] of 190 mg/kg), but does not change the overall conclusions of the risk assessment. Refer to Section 3.2.1.3 of the final report for further discussion.

PAHs: EPA national ecological soil screening levels should be used in the screening. This change results in total HPAHs screening in for the risk assessment based on a NOAEL. However, these values do not exceed population level benchmarks (LOAEL approximated as 5x the values below).

- Low Molecular Weight PAHs (2-3 rings): 29 mg/kg soil invertebrates; 100 mg/kg mammalian
- High Molecular Weight PAHs (>4 rings): 18 mg/kg soil invertebrates; 1.1 mg/kg mammalian

Response: EPA's EcoSSLs were used preferentially in the risk screening, as available for analyte groups and receptor groups. As implied in the comment, this change does not appear to affect the screening. The maximum result of any PAH is 0.409 mg/kg, which is well below the lowest available EcoSSL of 1.1 mg/kg. Using these values did not change the conclusions of the risk assessment.

3. TPH: TPH values for evaluation of terrestrial risk are available from Washington Department of Ecology MTCA. The values for gasoline range organics are 100 mg/kg for protection of soil invertebrates and 5,000 mg/kg for wildlife; for diesel range organics 200 mg/kg for invertebrates and 6,000 mg/kg for wildlife. These values do not change the conclusions of the risk assessment.

Response: Values used by the Washington Department of Ecology (WDOE) Toxics Cleanup Program ("Ecological Indicator Soil Concentrations for Protection of Terrestrial Plants and Animals"; Washington Administrative Code [WAC] 2011) were used for diesel-range organics, as available for receptor groups. Using these values did not change the conclusions of the risk assessment.

4. Appendix C-3 and C-4, Risk Summary for Birds and Mammals: DEQ's terrestrial soil screening values do not include the bioaccumulation pathway. For PCBs, the ERA should evaluate a bioaccumulation screening level value, which are available from several sources and range from 0.371 mg/kg (Oak Ridge National Laboratory) to 0.65 mg/kg (Washington Department of Ecology). Two samples had concentrations above 0.371 mg/kg with a maximum detected concentration of total PCBs of 0.424 mg/kg. However, these values do not exceed population level benchmarks (LOAEL approximated as 5x the values below).

Response: Values used by the WDOE Toxics Cleanup Program ("Ecological Indicator Soil Concentrations for Protection of Terrestrial Plants and Animals"; WAC 2011) were used for PCBs, as available for receptor groups. Using these values did not change the conclusions of the risk assessment.

References:

U.S. Environmental Protection Agency (EPA). 2005. Guidance for Developing Ecological Soil Screening Levels (EcoSSLs). EPA Office of Solid Waste and Emergency Response (OSWER), OSWER Directive 9285.7-55. Published November 2003, Revised November 2005 and subsequent contaminant-specific EcoSSL documents.

Washington Administrative Code (WAC). 2011. Table 792-3 (Ecological Indicator Soil Concentrations for Protection of Terrestrial Plants and Animals), Chapter 173-340. Implementing regulations of the Toxics Control Act (MTCA); used by Washington Department of Ecology (WDOE), Toxics Cleanup Program, Terrestrial Ecological Evaluation Process. Available at: http://www.ecy.wa.gov/programs/tcp/policies/terrestrial/table_749-3.htm. Accessed 4/12/2011.

Please call me at (503) 415-6676 if you have any questions.

Sincerely,

Kelly Madalinski
Environmental Project Manager

Enclosure

c: Kristine Koch, EPA
Suzanne Barthelmess, Port
Jessica Hamilton, Port
Richard Vincent, Port
Michael Pickering, Ash Creek Associates
Mark Lewis, Formation Environmental
LWP File